



Science Fair Project

Research and Develop Project using the Scientific Method

1. Identify the Problem (Purpose)



- **Choose a topic**
 - Think of an area that interests you or that you are curious about. You will be spending some time working on your project so make sure that it is something YOU are excited to learn about.
- **Choose a question**
 - Ask a question that will narrow the focus of your investigation. Your project will be an attempt to answer this question.

EXAMPLE

Topic: Plant Growth

Possible Questions:

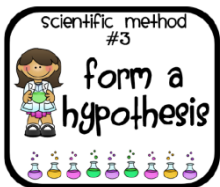
- How does sunlight affect plant growth?
- Which plant food works best?
- Can plants grow in water?

2. Research topic/question to develop background knowledge (Research)



- Look in books, magazines/publications, or websites
- Get advice/information from experts
- Make observations

3. Develop a hypothesis (Hypothesis)



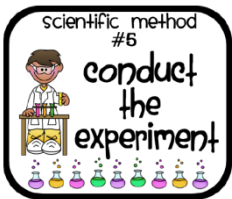
- A hypothesis is an educated guess.
- What do you think is the answer to the question? Make a guess based on your research and write it down.
- Since you have done some research, you probably have some ideas about how your experiment will turn out.
- State your hypothesis in a way you can measure or test.

4. Plan Experiment/Investigation (Method)



- Gather/list materials used to complete experiment/investigation
- List each step that will be done
- Number each step in order and write down everything that is done so that others will be able to repeat the experiment, by reading the procedure

5. Conduct your Experiment / Investigation



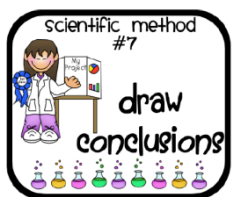
- Put your plan into action!
- Control the variables (Set up your experiment so that only one thing changes(*variable*) while the rest of it stays the same(*constant*). The thing that is changed is called a variable because you are varying (or changing) it.

6. Keep detailed records of your experiment (Data / Results)



- Make observations and take notes
- Collect data and record it in a journal/notebook
- Use charts, graphs, photographs, or measurements to record data/results

7. Draw Your Conclusions (Conclusion)



- Since you have done some research, you probably have some ideas about how your experiment will turn out.
- Make a guess based on your research and write it down.
- State your hypothesis in a way you can measure or test.

Sample Science Fair Display Boards

